

①

string

```
public static socialSecurityStatus(int age){
```

```
    String ssn="";
```

```
    if (age > 65)
```

```
        ssn="eligible";
```

```
    else
```

```
        ssn="ineligible";
```

```
    return ssn;
```

```
} OR return (age > 65) ? "eligible" : "ineligible";
```

③

```
public double area(double radius){
```

```
    double a = (double) (Math.PI * Math.pow(2, radius));
```

```
    return a;
```

```
}
```

```
public double diagonal(int len, int wid){
```

```
    double diag = Math.sqrt(Math.pow(2, len) +
```

```
        Math.pow(2, wid));
```

```
    return diag;
```

④

$$② \quad 3 \times 5 / 9 \% 2$$

$$15 / 9 \% 2$$

$$1 \% 2$$

$\Rightarrow 1$ // 0% type int.

$$⑤ \quad 4 \wedge 3 \& 5$$

$$4 \wedge \left(\begin{array}{c} 011 \\ 101 \end{array} \right)$$

$$4 \wedge \left(\begin{array}{c} 001 \\ 1 \end{array} \right)$$

$$4 \wedge 1 = \begin{array}{r} 100 \\ 001 \\ \hline 101 \end{array}$$

$$\Rightarrow 5 //$$

$$⑥ \quad 13 \gg 2 \ll 2 \wedge 4$$

$$13 \gg 010 \wedge 4$$

$$13 \gg 0 \wedge 4$$

$$13 \wedge 4$$

$$\begin{array}{r} 1101 \\ 0101 \\ \hline 1000 \end{array}$$

$$\Rightarrow 8 //$$

$$⑦ \quad 32 / 16 / 3 \gg 2 \& 5$$

$$32 / 5 \gg 2 \& 5$$

$$32 / 1 \& 5$$

$$32 / \begin{array}{c} 001 \\ 101 \\ \hline 001 \\ 1 \end{array}$$

\Rightarrow

$$32 / 1 = \begin{array}{r} 1000001 \\ 000001 \\ \hline 1000001 \end{array}$$

$$\Rightarrow 33 //$$

⑤ `int a = (b = 5);`

no, because the variable "b" doesn't have a data type. if it is assigned before it is working and the value of a is 5.

② `String s = "a friendly face";`

a. `s.charAt(2);`
= f

b. `s.length();`
= 15

c. `s.substring(2, 9);`
⇒ friendly.

`s.substring(4);`
⇒ endly face